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A NEW SPECIESOF UGANDATRICHIA

(TRICHOPTERA:HYDROPTILIDAE) FROM TAIWAN

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Abstract.Ugandatrichia, a smallbutwidespreadAfrotropical-SE Asian-NewGuineangenus oflargehydroptilids isrecordedhereforthefirsttimefromTaiwan.A new species,U. taiwa-nensisHsu andChen n.sp.,isdescribedfromcentralTaiwan,fromadultmalesandfemales. Thematurelarvaandpupaarealsodescribedandillustrated; thelarvalformandcaseformation differs considerably fromthesouthernAfricanspeciesU. rhodesiensis, butsimilartothesouthern AsianspeciesU. maliwan,suggestingthatthelarvalnicheofthenew speciesisprobablythe sameastheAsianspecies.
Key Words.Insecta,Trichoptera, Hydroptilidae, Ugandatrichia, Taiwan,New Species.

Ugandatrichia Mosely,1939isa smallgenusofhydroptilid cadisflies found insouthernandcentralAfrican,S andSE AsiatoNew Guinea,butuntilnow, notrecordedfromTaiwan.Marshall(1979)revisedthegenus,providingdiagnoses foradults,pupaeandfinalinstarlarvae.Wells(1991),describeda speciesfrom PapuaNew Guinea,addedremarksonthegenusanditspossibleaffinities. Mar‹ shallbasedherdiscussion oflarvaeandpupaeon thedescription by Scott(1976) ofa southernAfricanspeciescollected fromtorrenticolous waters.BothScottand Marshallnotethathelarvaeshowadaptations tothishabitat. MalickyandChan-taramongkol(1991)found3 new speciesfromThailand,and Malicky(1999) addedremarksoflarvamorphology,pupacase,larvabehaviorandecologyofU. maliwanMalicky& Chantamogokal. Thelarvaofthenew speciesdescribedhere isalsofromfastflowingwaters.Itsfeaturesarequitedifferent fromthoseAfrican species.The dome-shapedcaseresemblesU. maliwanandthoseofmany ofthe stactobiine larvaewhichfeedon thesurfaceofrocks,boundersandbasement rockinstreamsandrivers.Ratherthanbeingstronglydorsoventrally flattened as theAfricanspecies(Scott1976),theTaiwaneselarvaismorecylindrical andit hasthreecuriousmediansclerotized areasontheventralabdomenasU. maliwan, ratherthantheregularabdominaltergites ofU. rhodesiensis. Theyoungerlarva ofTaiwansspeciesalsoplaya commensalismsbehaviorwiththeolderlarvajust thesameasthoseofThailandsU. maliwan.Theseevidencessuggestdifferences inlifestylebetweentheSE AsianandAfricanspeciegroups.The terminology inthispaperfollowsMarshall(1979).

MaterialsandMethods

Allspecimenswerecollected by theseniorauthor.Adultswerecollected by sweep-netting alongtheriverbanks,larvaeandpupaewerecollected by hand‹ pickingfromsmallmountainrivers.Allspecimenswerepreservedin75% al‹ cohol.Adultgenitalia weretreatedfor15 minuteswithhot10% KOH, then examinedandillustrated undera stereomicroscope. Theholotypeandsomepar-atypesare depositedin theNationalMuseum of NaturalScience,Taiwan (NMNS);forthepresent,heremainingparatypesarestoredintheInsectLabo‹ ratoryoftheDepartmentofBiology,TunghaiUniversity.

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Figures1-5. Ugandatrichia taiwanensis n. sp.Male taxonomiccharacters. Figure1. Head and thorax(dorsalview).Figure2. Forewingandhindwing.Figure3.Genitalia, lateralview.Figure4. Genitalia, dorsalview.Figure5.Genitalia, ventralview.Abbreviation: VIII,abdomensegmentVIII; IX,abdomensegmentIX;X, abdomensegmentofX; pr a.,preanalappendages;pha.,phallus;ej., ejaculatory duct;inf.a.,inferior appendages.Thescalelinesrepresent 0.1mm unlessindicated oth‹ erwise.